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Researching Academic Reading in two contrasting EMI (English as a Medium of Instruction) university contexts, and implications for the design of EAP reading tests

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Researching Academic Reading in Two Contrasting English as a Medium of Instruction Contexts at a University Level

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Overview

- Background to study
- Rationale
- Two EMI contexts (Tribhuvan University, Nepal and Stockholm University, Sweden)
- Research focus
- Methodology
- Key findings
- Discussion and conclusion



INTRODUCTION

- EMI:
 - English increasingly being used as the medium of instruction (EMI) in universities in countries for which English is not the native language (British Council, 2014)
 - University EMI programmes requiring proof of English language proficiency upon entry (e.g. TOEFL and IELTS (Saarinen and Nikula 2013)
 - Academic Reading relatively unexplored, despite reading being the main skill required for accessing knowledge in higher education (Manarin et al. 2015).

RATIONALE

- A lack of research into differences between EMI contexts (Global North and south) and North American, UK and Australia contexts
- Need to investigate the validity of using these tests as entry tests for EMI contexts
- EMI policies sometimes developed for political rather than for educational reasons (Bax 2010, Dearden 2014)
- Do students in such contexts in fact have adequate English skills to meet their programmes' learning outcomes?

TWO EMI CONTEXTS

Nepal (Global South)



- Multilingual country with at least 123 languages spoken
- Perceived value of English for international communication (Eagle, 2000; Sah & Li, 2018; Shrestha, 2008)
- English language the most widely used foreign language in the country (compulsory from school to undergraduate)
- Nepal facing difficulties in implementing EMI given multilingual context with its own diverse challenges (Giri, 2011; Phyak, 2013).



Stockholm
University

Sweden (Global North)

- English, however, pervasive in Swedish society and playing a prominent role since the 19th century (O'Dell 1997)
- Experienced an “unprecedented expansion of EMI” (Airey et al. 2017). In 2014, 822 EMI programmes at Swedish universities, compared to 123 in 2007 (Wächter and Maiworm 2014)
- Concerns about threat to Swedish democratic ideals and presumed negative effects on the Swedish language (Gunnarson 2001).

FOCUS ON READING

- Successful reading crucial for academic study
- Despite significant changes in major language tests over the last 30 years, high-stakes tests retaining dedicated reading sections (Moore et al, 2007)
- Readers in EMI contexts:
 - English as a second or foreign language (Koda, 2005)
 - Drawing from a number of L1 capabilities in L2 text engagement, including knowledge of morphosyntax, phonology, pragmatics, metalinguistic awareness and communicative strategies (Grabe, 2009).

FOCUS ON READING

Reading in TOEFL iBT centred around three reading purposes:

- Reading for basic comprehension
 - Understand the main ideas or the main points of the text (Enright et al, 2000: 6)
- Inferencing
 - Comprehend ideas not explicitly stated in a text (Pearlman, 2008: 242)
- Reading to learn
 - Develop “an organised mental representation of a text that supports the recollection and reconstruction of ideas in the text” (Jamieson et al, 2008: 72).

RESEARCH QUESTIONS

1. What are the reading practices of students in the two EMI contexts under investigation?
2. Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

RQ1:

What are the reading practices of students in the two EMI contexts under investigation?

- A detailed reading log by a self-selected sample of students from each context;
- Likert-type items from the questionnaire to university students in each of the two EMI contexts, examining past and present academic reading practices and strategies;
- Follow-up interviews in each context, examining detailed reading practices of students within each domain.

METHODOLOGY

RQ2:

Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

- Delivery of TOEFL iBT reading test (60-90 minutes) in the two EMI contexts to students who complete questionnaires;
- Follow-up questionnaires to gauge student perceptions of the test

DATA COLLECTION AND ANALYTICAL PROCEDURES

Stage	Time frame		Research instrument	Research question	Data collected	Analytical procedures
	Sweden	Nepal				
1	3 weeks (October – November 2017)	3 weeks (March – April 2018)	Reading log	RQ1	Sweden: N = 9; Nepal: N = 19. Name of material read; genre; reading purpose; language; number of pages	Descriptive; Summarizing of texts, genres and languages across research locations
2	Undertaken sequentially	Undertaken sequentially	Reading practices Questionnaire	RQ1	Sweden = 60; Nepal = 69. Forty one Likert-type items on reading practices, linguistic information and attitude to studying in English.	Descriptive analysis of Likert-type items;
			Reading section of the TOEFL iBT test	RQ2	Forty-one multiple-choice questions based around three passages.	Descriptive; classical item analysis; hypothesis testing
			TOEFL suitability questionnaire	RQ2	Ten Likert-type items asking students to reflect on their experience of taking the TOEFL iBT reading test section, and questions on previous test experience.	Descriptive analysis of Items.
3	Undertaken sequentially	Undertaken sequentially	Post-test interviews	RQ1/2	Sweden = 23, Nepal = 21. Interviews lasting approximately 20 minutes.	Manual coding of verbal data; grounded analysis of emergent themes

PARTICIPANTS: LINGUISTIC DIVERSITY

Nationality	Count
Brazilian	1
British	1
Bulgarian	1
Canadian	1
Danish	1
Dutch	3
English	1
French	2
Georgian	1
German	8
Greek	1
Indian	5
Italian	2
Pakistani	2
Polish	1
Romanian	1
Scottish	1
South African	1
Spanish	2
Swedish	19
Swedish/Iraqi	1
Swedish/Portuguese	1
Swedish/Russian	1
Turkish	1
Ukrainian	1
Grand Total	60

- All Nepali participants Nepali.
- Despite diverse nationality, cohort from Stockholm not exhibiting greater *linguistic* diversity
- Average number of spoken languages from Stockholm University = 2.7; Tribhuvan University = 2.6
- Tribhuvan students reporting knowledge of Nepali, English and Hindi, in addition to other local languages such as Tharu, Newari, Maithili and Doteli.

Linguistic diversity of students in Stockholm cohort

FINDINGS

RQ1: What are the reading practices of students in the two EMI contexts under investigation?

- Reading logs (two-week period):

	Tribhuvan University (n =10)			Stockholm University (n =9)		
Source	Language	Pages	Percent	Language	Pages	Percent
Academic	English	2,008	45.75	English	2,498	50.91
	Nepali	129	2.94	Other	44	0.90
	English/ Nepali (mixed)	155	3.53			
Non-academic	English	999	22.77	English	1,520	30.98
	Nepali	1,382	31.48	Other	845	17.22
	Total	4,390	100			
					4,907	100

FINDINGS

RQ1: What are the reading practices of students in the two EMI contexts under investigation?

- Reading logs (two-week period):

Source	Number of sources cited	Sum of pages	Pages per student
Tribhuvan (n = 10)	171	4,390	231
Article	60	746	39.3
Book/textbook	71	2,818	148.3
Lecture notes	7	163	8.6
Newspaper	4	36	1.9
Reference	8	285	15.0
Thesis	6	307	16.2
Web page	15	35	1.8
Stockholm (n = 9)	139	4,907	545.2
Article	54	777	86.3
Book/textbook	75	3,844	427.1
Lecture notes	3	66	7.3
Reference	5	218	24.2
Web page	2	2	0.2
Grand total	310	9,297	

FINDINGS

RQ1: What are the reading practices of students in the two EMI contexts under investigation?

- Questionnaire findings (n=129):

Tribhuvan University					
Item	0%	25%	50%	75%	100%
1.1. What proportion of the courses on your study program is delivered in English?	1	3	3	4	49
1.2. What proportion of the reading material is in English?	0	1	6	17	45
1.3. What proportion of the assessment material (exams, assignments, etc.) is in English?	0	2	7	11	49
Stockholm University					
Item	0%	25%	50%	75%	100%
1.1. What proportion of the courses on your study program is delivered in English?	1	3	3	4	49
1.2. What proportion of the reading material is in English?	0	2	1	13	44
1.3. What proportion of the assessment material (exams, assignments, etc.) is in English?	0	3	4	3	50

FINDINGS

RQ1: What are the reading practices of students in the two EMI contexts under investigation?

- Questionnaire findings (n=129):
- Top five reading strategies in both contexts:

Tribhuvan University					
Item	Never	Rarely	Sometimes	Frequently	Always
4.9. Use a dictionary, thesaurus or glossary to check the meaning of unfamiliar words	1	1	10	14	42
4.6. Link information I read to my existing knowledge	0	0	10	26	32
4.3. Identify the main points the author makes	1	1	9	28	29
4.5. Link ideas together to understand the whole argument	0	0	13	30	26
4.8. Read a section multiple times to ensure I understand it	1	5	7	24	32
Stockholm University					
Item	Never	Rarely	Sometimes	Frequently	Always
4.6. Link information I read to my existing knowledge	1	1	9	24	25
4.3. Identify the main points the author makes	0	0	14	21	24
4.8. Read a section multiple times to ensure I understand it	0	2	10	32	15
4.5. Link ideas together to understand the whole argument	0	2	12	31	15
4.2. Search for specific pieces of information	0	0	17	29	14

FINDINGS

RQ2: Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

TOEFL iBT results

Reading purpose	EMI context	N	Max score	Mean score
Total	Tribhuvan Stockholm	69 60	45	20.41 35.83
Basic comprehension	Tribhuvan Stockholm	69 60	29	14.62 24.42
Inferencing	Tribhuvan Stockholm	69 60	9	3.20 6.58
Reading to Learn	Tribhuvan Stockholm	69 60	7	2.58 4.33

- Cronbach's Alpha (reliability) = .93 (Nepal = .86; Sweden = .80)

FINDINGS

RQ2: Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

TOEFL iBT results

- Levene's test (Levene, 1960) ($f = 6.40$, $p < .05$) indicated unequal variance.
- Mann–Whitney U test to compare scores across the two contexts:
- Stockholm University students outperformed Tribhuvan University students in the test
- ($U = 2,690.00$, $p < .01$, $d = 0.53$).
- Basic comprehension ($U = 2,686.00$, $p < .01$, $d = 2.17$),
- Inferencing ($U = 2,877.00$, $p < .01$, $d = 0.71$),
- Reading to learn ($U = 3,207.50$, $p < .01$, $d = 1.07$).
- N.B. All tests were significant at the Bonferroni-adjusted p -value of .01.

FINDINGS

RQ2: Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

- Post-test questionnaire findings (n=129): did Sweden-based students respond differently to Tribhuvan-based students?

Stockholm University					
Item	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
5.1. The different types of questions in the TOEFL reflect the English reading skills needed for my course	0	0	15	36	9
5.3. The TOEFL test is an accurate reflection of my English reading ability	0	8	22	28	2
5.5. People who perform well in the TOEFL reading test will do well in university	8	12	23	13	3
5.8. Performance in the test depends on text topic	0	5	7	29	19
Tribhuvan University					
Item	Strongly disagree	Disagree	Uncertain	Agree	Strongly agree
5.1. The different types of questions in the TOEFL reflect the English reading skills needed for my course	0	0	3	38	25
5.3. The TOEFL test is an accurate reflection of my English reading ability	0	6	15	35	12
5.5. People who perform well in the TOEFL reading test will do well in university	2	12	27	18	8
5.8. Performance in the test depends on text topic	1	4	5	39	18

FINDINGS

RQ2: Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

- Interview data (Sweden = 23, Nepal = 21)

Nvivo nodes	Total coded comments	Sweden total comments	Nepal total comments
Impressions of taking the TOEFL test			
Mixed	59	26	33
Negative	74	39	35
Neutral	74	58	16
Positive	76	43	33
Suitability of the TOEFL	78	29	49

FINDINGS

RQ2: Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

- Interview data (Sweden = 23, Nepal = 21)
 - *I think we can improve our English, we can improve our understanding, so we can improve our reading. And it is more beneficial to us I think, it is beneficial for improving our English. (Nepali MSc student)*
 - *Obviously, we find TOEFL test difficult but beyond the difficulty we also learned something, like this certain techniques must be followed for studying. (Nepali BSc student)*
 - *This is also quite difficult for me. I need to read more than two or three times, but time is too much limited in that section, I think. (Nepali MSc student)*

FINDINGS

RQ2: Is the reading section of the TOEFL iBT suitable as an entry test for different EMI program courses in the two contexts?

- Interview data (Sweden = 23, Nepal = 21)
 - *University requires to understand the whole meaning of texts and this test was more about certain words or certain sentences or smaller parts. At the end there was a question that's more about the overall [text]... so yes I'm not sure if it's covering the whole [text]. (German MSc student)*
 - *I get that that's tricky for some people, but I think it was a really good test, because it's important to understand the meaning of a text where it does not tell us directly what it's supposed to mean. Understanding the paragraph. (Swedish MSc student)*
 - *Anybody who does well in a TOEFL test is probably good at English. Actually, all three questions were very well chosen. Whoever designed this test is really good. (Swedish MSc student)*

DISCUSSION & CONCLUSIONS

- Interview, questionnaire, and test data indicated that the TOEFL iBT reading test was useful in identifying English reading proficiency of multilingual students in diverse EMI settings.
- Overwhelming perception by participants in this study that text content impacts their test performance
- Adapting an international test of English to each local context is not feasible.
- Local or national policies oriented toward local or school-level qualifications
- Diverse educational backgrounds and pathways of incoming students

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SUPPLEMENTARY DISCUSSION

RQ1: What are the reading practices of students in the two EMI contexts under investigation?

- **Similarities:**
 - Both EMI contexts multilingual, as is EMI instruction, although rely on English language texts
 - Students reading from a diverse range of sources (academic books, journal articles, reference works, online sources and lecture notes)
 - Students reading in English for recreational purposes and in reading around their topic by consulting English-language sources
 - Studying in English a challenge for both cohorts:
 - A lack of time to engage with all of materials they would like to read
 - This compounded by a lack of subject knowledge in their subject by undergraduate students.

SUPPLEMENTARY DISCUSSION

RQ1: What are the reading practices of students in the two EMI contexts under investigation?

- **Differences:**

- Test results showing a difference in proficiency across the two cohorts
- Sweden-based students scoring on average much higher than Nepali students for basic comprehension, inferencing and reading-to-learn items
- Nepali students reliant on reading strategies to mitigate difficulties. For example:
 - Asking course tutors to teach reading strategies and to manage unfamiliar material and forming pre-reading questions
 - Conversely, students in Sweden more confident and self-reliant and attempt to infer meaning of unfamiliar lexis as they progress through a challenging text
 - Students in Nepal reported building inter-textual representation (Khalifa and Weir, 2009) in multiple languages for academic purposes (reading in English, moving to a source in another language, then back to English during the same reading session).

Supplementary student interview quotes

- “If it is a general word the first thing I try to do is I analyse from the reading the text. If someone asks me a meaning of a word I never go for that. I’ll say please can you read the complete sentence, it helps in that way. And the second thing I do is I go to the internet and obviously check. Learn more about the word and try to just use it” (Indian MSc student, Sweden).
- “I usually try to re-read the whole article, to read it again one more. Because I mean apparently from the first time you cannot understand everything. So you have to read it one more time, maybe highlight a few important points. I usually do this, I highlight. And then I try to make a structure of the article. But if it is like a more a challenging topic like this one then I will probably Google for a review or an explanation, or what the writer meant by this and stuff” (Greek BSc student, Sweden).
- “When it comes to something academic I usually try to understand from the context because I don’t like really using dictionaries. But if I really need to understand a word then I just look it up online. And if it’s a terminology when it comes to the subject that I’m studying about, then I just go for YouTube videos that explain with images and stuff” (French BSc student).

Supplementary student interview quotes

- “Personally, I feel more comfortable with my mother tongue, i.e. Nepali but we have to know English because English is the language which is used worldwide. I think English is universal language, some countries, developed countries like China, Russia, they use their own language, they don’t give more priority to English but the universal language is English. So, I have to learn English, I have to improve my English to compete in the global market. So I think English is very important but I personally feel more comfortable with Nepali.” (MSc Botany student, Nepal)
- “And specially when we talk about reading and writing, some people are very good at reading and writing, and some people are good at speaking but I think if you understand what I am trying to communicate and I understand what you are trying to communicate, then we don’t also need much formalities and rank, I mean which sophisticated language I use or the words I choose. So it’s just about the communication and I think TOEFL test and the other English language test must not be made such, I mean benchmark for getting in any Universities or not getting, getting in some country or not getting.” (MSc Environmental student, Nepal)